

ACCESSION NR: AP4041355

vities of the crystals with low impurity concentration increased and their Hall constants decreased exponentially with increasing temperature. For the specimens with impurity concentration greater than  $10^{18} \text{ cm}^{-3}$ , the conductivity decreased and the Hall constant increased with increasing temperature in the high temperature region. The low temperature Hall mobility decreased with increasing impurity concentration from  $2 \times 10^5 \text{ cm}^2/\text{V sec}$  for the material with a carrier concentration of  $4 \times 10^{15} \text{ cm}^{-3}$  to  $8 \times 10^3 \text{ cm}^2/\text{V sec}$  for that with a carrier concentration of  $7 \times 10^{18} \text{ cm}^{-3}$ . All the Hall mobilities decreased with increasing temperature in the high temperature region. The mobility of the conduction electrons is calculated with scattering by impurity ions and optical lattice vibrations taken into account, and good agreement with the measured values is found. Arguments are presented which indicate that the scattering parameter (ratio of Hall to drift mobility) should be near unity over the entire temperature range investigated, but the authors do not find these entirely convincing and suggest that scattering from acoustic phonons may also contribute to the decrease of the mobility at high temperatures. The increase with increasing temperature of the Hall constant of the highly doped crystals is discussed, but no convincing explanation is found. The authors conclude that these questions require further investigation. Orig:art:has: 7 formulas, 4 figures and 1 table.

Card  
2/3

ACCESSION NR: AP4041355

ASSOCIATION: Fiziko-tehnicheskiy institut im.A.F.Ioffe Akademii nauk SSSR (Physico-  
technical Institute, Academy of Sciences, SSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: SS,IC

NR REF Sov: 005

OTHER: 006

395

L 6724-65 EWT(1)/EM<sup>-</sup>(k)/EWT(m)/T<sup>-</sup>WP(q)/EMP(b) P4-6 IJP(c)/AEWL/RAM(c)/  
ASD(s)-5/ESD(dp)/ESD(c)/P<sup>-</sup>EM(t) AT/JD  
ACCESSION NR: AP4046469 S/0032/64/030/010/1230/1232

AUTHORS: Volkov, A. S.; Galavonov, V. V.; Rzayev, M. A.

TITLE: Determining impurity concentrations in the p-layer of p-n junctions

SOURCE: Zavodskaya laboratoriya, v. 30, no. 10, 1964, 1230-1232

TOPIC TAGS: semiconductor device, thermal EMF, temperature dependence

ABSTRACT: The ordinary way to measure impurity (current carrier) concentration in a recrystallized layer is to measure the thermal EMF. This involves errors, however, because of imprecision in measuring temperature gradient and value of the thermal EMF. This imprecision results from the effect of the p-n junction and of the shunting effect of the base material. Since the inversion temperature of the thermal EMF depends on acceptor concentration in a crystal, the authors have devised a means of using this property to measure concentration. The inversion temperature of a test sample is compared with that of a standard p-type specimen having known concentration. The setup is illustrated in Fig. 1 on the Enclosure. Measurements are made under nonsteady conditions, which prevents the thin p-layer from heating all the way through and prevents creation of a tempera-

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ACCESSION NR: AP4046469 /

ture gradient in the vicinity of the p-n junction. By this means the effect of the junction is eliminated. Since absolute values of temperature gradient of the thermal EMF need not be known, the accuracy of measurement is greatly increased. Experimental results are in good agreement with computed results. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR  
(Physico-technical Institute, Academy of Sciences SSSR)

SUBMITTED: OO

ENCL: 01

SUB CODE: EC

NK REF Sov: 001

OTHER: 002

Card 2/3

L 61130-65 EWP(m)/EWP(b)/T/EWA(d)/EWP(w)/EWP(t) IJP(c) JD  
 ACCESSION NR: AP5019924 UR/0202/65/000/004/0105/0107  
 AUTHOR: Berkeliyev, A. D.; Galavanov, V. V.; Nasledov, D. N.  
 TITLE: The effect of copper impurity on the electrical properties of indium  
 antimonide  
 SOURCE: AN TurkmenSSR. Izvestiya. Seriya fiziko-tehnicheskikh, khimicheskikh i geo-  
 logicheskikh nauk, no. 4, 1965, 105-107  
 TOPIC TAGS: indium antimonide crystal, n type crystal, copper activated crystal,  
 crystal electrical property, copper diffusion  
 ABSTRACT: The possibility of obtaining p-type indium antimonide with a low concentra-  
 tion of current carriers has been studied on p-InSb crystals made by the diffusion  
 of copper into n-type InSb crystals. A thin copper layer was deposited by vacuum  
 sputtering on zone-refined n-type InSb samples with electron concentration of  
 $(2-9) \times 10^{12} \text{ cm}^{-3}$ . The samples were then submitted to diffusion annealing at  
 180-300°C in vacuum or argon atmosphere. The change in conductivity type was ob-  
 served after annealing at 260 to 300°C, depending on the electron concentration in  
 the starting material. The hole concentration in the annealed material was found to  
 be low (in the  $(1.3-4.8) \times 10^{13} \text{ cm}^{-3}$  range) and hole mobility sufficiently high (in  
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ACCESSION NR: AP5019924

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the  $(2.9-7) \times 10^3 \text{ cm}^2/\text{v}\cdot\text{sec}$  range). The above data were obtained at 78K. Temperature dependence of the electrical conductivity, Hall constant, and hole mobility were measured on selected samples in the 78-330K range. The hole mobility in the 78-120K range was nearly constant. The calculated energy of activation ( $0.044-0.054 \text{ eV}$ ) was found to be in satisfactory agreement with literature data.  
Orig. art. has: 1 table and 1 figure.

[JK]

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe AN SSSR (Physico-technical Institute, AN SSSR); Fiziko-tehnicheskoy institut AN TurkmenSSR (Physico-technical Institute, AN TurkmenSSR)

SUBMITTED: 19Jan65

ENCL: 00

SUB CODE: SS, EM

NO REF SOV: 002

OTHER: 004

ATT'D PRESS: 4070

KC  
Card 2/2

L 13176-66  
ACC NR: AP6001584

FSS-2/EWT(1)/STC(F)/EMD(1)

SOURCE CODE: UR/0120/65/000/006/0159/0161

30

B

AUTHOR: Galavanov, V. V.; Zlatkin, L. B.

ORG: Physicotechnical institute, AN SSSR, Leningrad (Fiziko-tehnicheskiy institut  
AN SSSR)TITLE: Photoelectric barrier-layer cell based on Ag<sub>2</sub>S

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1965, 159-161

TOPIC TAGS: photoelectric cell, barrier layer cell, silver sulfide cell

ABSTRACT: A study was made of the mechanism of p-n junction formation in Ag<sub>2</sub>S and the creation of a barrier-layer cell sensitive in the ultraviolet, visible, and near infrared regions of the spectrum. A cross sectional view of the cell is shown in the accompanying figure. The region of spectral sensitivity (2200—15000 Å) has

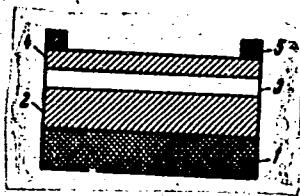


Fig. 1. Cross sectional view of the barrier-layer photocell

1 - Metal base; 2 - base of the photocell, consisting of Ag<sub>2</sub>Te ( $\beta$ -phase, hessite) with an excess of Ag; 3 - n-type semiconductor layer, consisting of Ag<sub>2</sub>S with excess of S and with Te and Sb impurities (Ag<sub>2</sub>S + S + Te + Sb); 4 - p-type semiconductor layer, consisting of a film of Sb with a thickness of 100—200 Å; 5 - contact ring.

UDC: 621.383.51

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L 13176-66

ACC NR: AP6001584

two maxima: in the ultraviolet, at 2500--2700 Å, and in the infrared, at 7500--8000 Å. Volt-ampere and load characteristics and the temperature dependence of the short-circuit current were measured. It was found that the occurrence of the photoeffect in the photocell is associated with the presence of a p-n junction in its structure. The total sensitivity and the photoemf, measured at a color temperature of the He source of 2355K and an illumination of 50 lx, were found to be 500  $\mu$ amp/lu and 60 mv, respectively. Orig. art. has: 3 figures.

[JR]

SUB CODE: 09/ SUBM DATE: 16Nov64/ ORIG REF: 007/ ATD PRESS: 4182

Card 2/2

L 54735-65 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD  
ACCESSION NR: AP5014612 UR/0181/65/007/006/1904/1906

AUTHOR: Galavanov, V. V.; Nasledov, D. N.; Filipchenko, A. S.

TITLE: Temperature dependence of the effective mass of electrons in indium antimonide

SOURCE: Fizika tverdogo tela, v. 7, no. 6, 1965, 1904-1906

TOPIC TAGS: indium antimonide, effective mass, electron mobility, temperature dependence

ABSTRACT: Continuing earlier work on the temperature dependence of the electron mobility in alloyed crystals of InSb (Izv. AN SSSR, ser. fiz. v. 28, 963, 1964; FTT v. 6, 2683, 1964), the authors have calculated the temperature dependence of the effective mass of the electrons in crystals with different impurity concentrations with strict allowance for the non-parabolicity of the conduction band; the formulas are based on calculations of J. Kolodziejczak (Acta Phys. Polonica v. 21, 637, 1962). The effective mass was calculated for three samples with intrinsic conductivity and with electron density  $2.5 \times 10^{18}$  and  $6 \times 10^{18} \text{ cm}^{-3}$ . The results are compared with experiments based on the measurement of the Faraday effect. Good

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ACCESSION NR: AP5014612

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agreement was observed for the sample with the intrinsic conductivity and for the sample with the lower electron density, thus confirming the correctness of the band model proposed by E. O. Kane (J. Phys. Chem. Sol. v. 1, 249, 1957). Reasons are proposed for the disparity between the experimental and theoretical results for the sample with the higher electron concentration. "The authors thank Yu. I. Uchanov and Yu. V. Mal'tsev for measuring the effective mass." Orig. art. has: 1 figure [02]

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe, Leningrad (Physico-technical Institute)

SUBMITTED: 29Jan65

ENCL: 00

SUB CODE: SS, 7D

NO REF Sov: 003

OTHER: 002

ATD PRESS: 4030

Cord 2/2

BERKELIYEV, A.E.; VOLKOV, A.S.; GAIKANOV, V.V.; VASIL'EV, D.N.

Lifetime of nonequilibrium current and noise carriers in p-.  
InSt. Fiz. tver. tala 7 no.6:1908-1910 Je '65. (MIRA 18:6)

1. Fiziko-tehnicheskiy institut imeni Ioffe AN SSSR, Leningrad.

L 11133-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b) IJP(c) JD/GG  
ACC NR: AP6000875 SOURCE CODE: UR/0181/65/007/012/3655/3657

66

AUTHORS: Galavanov, V. V.; Goryunova, N. A.; Korshak, N. M.;  
Mamayev, S.; Nazarov, A.

ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR, Leningrad  
(Fiziko-tehnicheskiy institut AN SSSR)

TITLE: Some properties of  $p\text{-CdSnAs}_2$

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3655-3657

TOPIC TAGS: cadmium compound, arsenic compound, tin compound,  
single crystal, electric conductivity, Hall coefficient, thermo-  
electric power, temperature dependence

ABSTRACT: Although the properties of n-type  $CdSnAs_2$  have been described in the literature, there is no published information on the p-type compound. The authors have produced by single crystals of p-type  $CdSnAs_2$  zone melting and measured the temperature dependence of the specific electric conductivity  $\sigma$ , the Hall coefficient  $R$ , and

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2

L 14133-66

ACC NR: AP6000875

D

the thermoelectric power  $\alpha$  on two samples measuring  $11.4 \times 3.2 \times 2.4$  and  $6.4 \times 1.45 \times 1.1$  mm with hole densities  $2.6$  and  $3 \times 10^{17} \text{ cm}^{-3}$  respectively at 100K. With increasing temperature the Hall constant reverses sign near room temperature, and  $\sigma$  varies like  $T^{-0.575}$  with increasing temperature from 100K to room temperature, after which it increases sharply in the region of the transition to intrinsic conductivity. The differential thermal emf is positive at low temperatures at 180  $\mu\text{V}/\text{deg}$ . At 380K it reverses sign and increases in absolute magnitude to 240  $\mu\text{V}/\text{deg}$ . The width of the forbidden band at 0°K was found to be 0.254 ev. The differences between the n-type and p-type samples is attributed to the difference in the carrier mobilities. The effective mass of the carriers is found to be  $0.4 m_0$ . It is concluded that CdSnAs<sub>2</sub>, like its iso electronic analogs InAs and InSb, is characterized by a large electron/hole mobility ratio and a large hole/electron effective mass ratio. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 28Jun65/ ORIG REF: 002/ OTH REF: 005

Card FW  
2/2

L 11120-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD  
ACC NR: AP6000891 SOURCE CODE: UR/0181/65/007/012/3685/3688

AUTHORS: Berkeliyev, A. D.; Galavanov, V. V.; Nasledov, D. N. 69  
ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR, Leningrad (Fiziko-tehnicheskiy institut AN SSSR) B

TITLE: Influence of deep acceptor level on the electric properties of p-InSb 1

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3685-3688

TOPIC TAGS: indium compound, antimonide, activation energy, carrier density, temperature dependence, impurity level

ABSTRACT: The authors report results of an investigation of the electric properties of single-crystal p-InSb with hole concentration at  $10^{12}$  --  $10^{14} \text{ cm}^{-3}$  at 78K. Two samples were prepared by zone melting, three samples were doped with germanium, and seven samples were obtained from n-type crystals by doping with copper or by heat treatment. The measurements were made at temperatures 78 -- 300K. The

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L 14120-66

ACC NR: AP6000891

activation energy of the impurities was determined from the temperature dependence of the electric conductivity and of the hole coefficient. For samples with  $p < 10^{13} \text{ cm}^{-3}$  the activation energy was 0.11 -- 0.12 ev; with increasing hole concentration, the activation energy decreased rapidly reaching 0.01 ev at  $5 \times 10^{13} \text{ cm}^{-3}$ . The activation energy was independent of the prior history of the samples and of the nature of the alloying impurity. The results can be interpreted by assuming the existence of both deep levels (activation energy 0.12 ev) and shallow levels in the forbidden band of InSb. This hypothesis is borne out by a study of the dependence of the hole concentration on the reciprocal temperature. Orig. art. has: 2 figures, 1 formula, and 1 table.

SUB CODE: 20/ SUBM DATE: 12Jul65/ ORIG REF: 004/ OTH REF: 005

*TS*  
Card 2/2

f 522-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD  
ACCESSION NR: AP5007106

S/0109/65/010/003/0569/0570

AUTHOR: Galavanov, V. V.; Ziyakhanov, U.; Nasledov, D. N.

TITLE: Negative-resistance diodes based on p-InSb

SOURCE: Radiotekhnika i elektronika, v. 10, no. 3, 1965, 569-570

TOPIC TAGS: magnetodiode, indium antimonide diode

ABSTRACT: I. Melingailis, et al. reported the results of experiments with the magnetodiode effect in p-n junctions based on p-InSb at 77K (Proc. IRE, 1962, 50, 12, 2428). The present article supplies the results of an experimental investigation of the effect of temperature and etching on the forward branch of the current-voltage characteristic of such junctions. Etching considerably changes the negative-resistance portion of the characteristic: the turnover bias voltage which was 0.6 v before the etching became 1.9 v after the etching. The negative-resistance portion decreases as the temperature increases. Orig. art. has 2 figures.

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2

[03]

L 36222-65

ACCESSION NR: AP5007106

ASSOCIATION: Fiziko-tehnicheskiy institut AN SSSR (Physico-Technical Institute, AN SSSR)

SUBMITTED: 05Mar64

ENCL: 00

SUB CODE: 55, EC

NO REF SOV: 004

OTHER: 001

ATD PRESS: 3220

Card 2/2 J0

L 60839-65 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(h) IJT(c) ID/AT  
ACCESSION NR: AP5017667 UR/0109/65/010/007/1306/1309  
539.293.011.41

AUTHOR: Galavanov, V. V.; Ziyakhanov, U.; Lebedev, A. A.

18

TITLE: Capacitive properties of alloy p-n junctions with a p-InSb base

17

SOURCE: Radiotekhnika i elektronika, v. 10, no. 7, 1965, 1306-1309

3+

TOPIC TAGS: p n junction, junction capacitance, diffusion capacitance, alloy junction, indium antimonide alloy junction

ABSTRACT: The capacitive properties of alloy junctions formed by p-InSb crystals as the base material and an alloy of In and 1% Te were investigated. Junctions with effective areas of  $(5-8) \times 10^{-3} \text{ cm}^2$  and majority carrier concentrations ( $N$ ) in the range of  $1 \times 10^{13}$ — $2 \times 10^{16} \text{ cm}^{-3}$  were tested in the 50—500 kc frequency range. The test results indicate a relationship  $1/C^2 \sim U$ , where  $C$  is the junction capacitance and  $U$ , the applied reverse bias. For  $U = 0$ , the barrier capacitance exhibited a linear dependence on the amount of the carrier concentration. When forward bias was applied to a junction with  $N = 7 \times 10^{15} \text{ cm}^{-3}$ , the measured capacitance considerably exceeded the value of the barrier capacitance. The diffusion capacitance  $C_{\text{diff}}$  was determined as the difference between the two and was in close agreement with the

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ACCESSION NR: AP5017667

magnitude of diffusion capacitance derived with the Shockley equation. From the slope of  $C_{\text{diff}} = f(I)$ , the minority carrier lifetime was estimated to be  $4 \times 10^{-8}$  sec for  $N = 7 \times 10^{15} \text{ cm}^{-3}$ . Upon application of large forward currents, the capacitance at first increases, but after reaching a maximum at a given current value, it degenerates into an inductance, as was previously observed in diodes with n-InSb as the base material. Increased temperature apparently reduces the contact potential and gives rise to increasing capacitance. Orig. art. has: 5 figures. [BD]

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe AN SSSR (Physicotechnical Institute, AN SSSR)

SUBMITTED: 27Apr64

ENCL: 00

SUB CODE: EC

NO REF SOV: 003

OTHER: 001

ATD PRESS: 4063

Card 212  
*jlk*

L 21398-66 EWT(m)/EWP(t)  
ACC NR: AP6003798

IJP(c) JD

SOURCE CODE: UR/0181/66/003/001/0244/0247

AUTHORS: Galavanov, V. V.; Nasledov, D. N.; Filipchenko, A. S.

ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR, Leningrad  
(Fiziko-tehnicheskiy Institut AN SSSR)

TITLE: Hall effect in singly doped n-type indium antimonide  
crystals with mixed scattering mechanism

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 244-247

TOPIC TAGS: Hall effect, indium alloy, antimonide, crystal  
impurity, impurity scattering, crystal lattice structure

ABSTRACT: This is a continuation of earlier work by the authors  
(FTT v. 6, 2683, 1964 and others) where it was shown that electrons  
in indium antimonide are scattered by impurity ions as well as by  
the optical vibrations of the lattice and by holes. In view of the  
observed anomalous growth of the Hall constant of strongly doped  
n-InSb crystals ( $n > 10^{18} \text{ cm}^{-3}$ ) at high temperature ( $T > 500^\circ \text{ K}$ ), the

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L 21398-66

ACC NR: AP6003798

authors show that one of the most probable causes of such a behavior of the Hall constant may be the incorrect value of the parameter A, used in the formula for it. They therefore recalculate the parameter for two crystals, with electron density  $2.5 \times 10^{18} \text{ cm}^{-3}$  and  $6 \times 10^{18} \text{ cm}^{-3}$ . They show that in the crystal with the lower density the value of the parameter decreases rapidly with increasing temperature, up to about 400K, whereas in the sample with the higher density the variation is oscillatory. In no case is the parameter equal to unity, as is customarily assumed. The reason for this behavior of A in mixed scattering is attributed to the inapplicability of the Kane band model to crystals with such high electron densities, and to general deviations from the properties of the crystal lattice when the impurity concentration is greatly increased. Further research is necessary to clarify this question. Orig. art. has: 2 figures and 6 formulas.

SUB CODE: 20/ SUBM DATE: 15 Jul65/ ORIG REF: 003/ OTH REF: 005

Card 2/2 ✓

L 18865-66 EWT(m)/EWP(I) IJP(c) JD  
ACC NR: AP6007516

SOURCE CODE: UR/0109/66/011/002/0355/0357

AUTHOR: Galavanov, V. V.; Ziyakhanov, U.

ORG: none

TITLE: Characteristics of p-InSb diodes at high injection levels

SOURCE: Radiotekhnika i elektronika, v. 11, no. 2, 1966, 355-357

TOPIC TAGS: diode, semiconductor diode, p-n junction

ABSTRACT: The results of an experimental investigation are reported of p-InSb diodes having different base thicknesses and high injection levels. The p-n junction was produced by alloying In + 1%Te; the base contact, by In + 5%Zn. Carrier concentration in the source material was  $2.6 \times 10^{14}$  per cm<sup>3</sup> at 78K. The I-V characteristics show that, with large currents, the current increases more slowly than the linear formula  $\lg I = f(U)$  suggests. With high injection levels, the forward branch of the I-V characteristic, allowing for the voltage drop in the bulk of the semiconductor (and with both p and n current components flowing through the junction), becomes linear, i. e., the diode forward resistance becomes independent of the current. "The authors wish to thank D. N. Nasledov for his constant interest." Orig. art. has: 2 figures, 2 formulas, and 1 table. [03]

SUB CODE: 09 / SUBM DATE: 19Apr65 / ORIG REF: 005 / OTH REF: 002 / ATD PRESS: 4217

Card 1/1 10

UDC: 621.382.21:546.682

41

B

2

L-43923-66 EMT(-)/ETP(+)/ETI LIP(+) JE

ACC NR: AP6030152

SOURCE CODE: UR/0120/66/000/004/0169/0170

AUTHOR: Galavanov, V. V.; Kostyrko, G. P.

43  
B

ORG: Physico-technical Institute, AN SSSR, Leningrad (Fiziko-tehnicheskiy institut AN SSSR)

TITLE: Cooled high-sensitivity InSb Hall transducer

✓ - ✓

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1966, 169-170

TOPIC TAGS: Hall effect, Hall transducer

ABSTRACT: The characteristics of an n-type InSb Hall transducer with an impurity concentration of  $8 \times 10^{13} \text{ cm}^{-3}$  and an electron mobility of  $(2-3) \times 10^5 \text{ cm}^2/\text{v}\cdot\text{sec}$  at 78K are presented. The transducers were made from crystals 10-12 mm long, 4-6 mm wide, and 0.5-1 mm in thickness, which was later reduced to 0.15-0.25 mm by polishing. Since the tests were made using temperature cycling with the lowest temperature reaching 78 K, it was necessary to select a substrate material whose coefficient of expansion would match that of InSb. Glass with an intermediate 10-15  $\mu$  layer of mica was considered suitable. The test results at constant current using two samples show that the resistance between the current and Hall electrodes are 15-25 and 40-90 ohms, respectively. The Hall voltage as a function of control current at constant magnetic force ( $H = 100 \text{ Oe}$ ) behaves linearly up to the value of 15 ma. Experimentally, it was established that the measurement error when measuring

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UDC: 621.382.61

L 43983-66

ACC NR: AP6030152

weak magnetic fields (such as the Earth's) is minimum when the control current is equal to 40 ma. The absolute measurement error or the sensitivity threshold of this transducer at the above value of the control current is  $2 \times 10^{-3}$  Oe. Magnetic fields with intensities > 1 Oe may be measured with an accuracy of  $\pm 0.1\%$ . Orig. art. has: 3 figures. [BD]

SUB CODE: 09/ SUBM DATE: 12Jul65/ ORIG REF: 001/ OTH REF: 001/ ATD PRESS: 5070

Card 2/2 ULR

ACC NR: AP6037002

(A,N)

SOURCE CODE: UR/0181/66/008/011/3402/3403

AUTHOR: Galavanov, V. V.; Kundukhov, R. M.; Nasledov, D. N.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad  
(Fiziko-tekhnicheskiy institut AN SSSR); North Ossetian State Pedagogical Institute  
im. K. L. Khetagurov (Severo-osetinskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Photoelectric solar energy converter made of InP

SOURCE: Fizika tverdogo tela, v. 8, no. 11, 1966, 3402-3403

TOPIC TAGS: solar cell, photoelectric cell, indium compound, phosphide

ABSTRACT: An efficiency of 6.7% was obtained from an InP photocell, compared to the 22% calculated theoretically by F. F. Loferksi (J. Appl. Phys. 27, 777, 1956) and the 2% obtained by P. Rappaport in 1956 (RCA Rev. 20, 373, 1956). The 0.1 cm<sup>2</sup> photoelements were prepared from single crystalline n-type material, the p-n junction being obtained by the double diffusion of cadmium or zinc. At a solar intensity of 70 mw/cm<sup>2</sup> and a temperature of 18C, the open-circuit voltage was 0.74 v and the short-circuit current 10 ma/cm<sup>2</sup>. The authors stress that their InP elements were not prepared with a view to obtaining optimal characteristics, and that, therefore, a higher efficiency may be expected when technical improvements are made. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 13Dec65/ ORIG REF: 001/ OTH REF: 002/ ATD PRESS: 5108

Card 1/1

ACC NR: AP6036374

SOURCE CODE: U/0109/66/011/011/2039/2043

AUTHOR: Galavanov, V. V.; Ziyakhanov, U.; Nasledov, D. N.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR (Fiziko-tehnicheskiy institut AN SSSR); Tashkent State Pedagogical Institute im. Nizami (Tashkentskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Straight line volt-ampere characteristic of p-n junctions based on p-type indium antimonide

SOURCE: Radiotekhnika i elektronika, v. 11, no. 11, 1966, 2039-2043

TOPIC TAGS: pn junction, junction diode, indium base alloy

ABSTRACT: The dependence of the straight-line characteristics of a p-n junction on temperature, sample surface treatment, and impurity concentration in the initial material is investigated. Indium antimonide crystals of the p-type with  $10^{13}$ — $10^{16} \text{ cm}^{-3}$  carrier concentration (N) at 78K were prepared by zone refining: junctions (area, 0.5—1.5 mm) were made by fusing in In and Te (0.5—1.0% at  $10^{-4} \text{ mm Hg}$  pressure. Etching samples in the Sp-4 sharply reduced their forward current at low voltages (up to 0.12 v): reverse current is reduced by two orders of magnitude for all voltages. The authors conclude that diffusion current dominates in samples with N in the  $10^{15}$ — $10^{16} \text{ cm}^{-3}$  range, while recombination current dominates samples with N in the  $10^{13}$ — $10^{14} \text{ cm}^{-3}$  range. Orig. art. has: 8 formulas, 3 figures, and 1 table.

SUB CODE: 09, 11/ SUBM DATE: 09Jun65/ ORIG REF: 002/ OTH REF: 004/ ATD PRESS: 5106

Card 1/1

ACC NR: AP6030150

(N)

SOURCE CODE: UR/0120/66/000/004/0164/0166

AUTHOR: Volkov, A. S.; Galavanov, V. V.

ORG: Physico-Technical Institute, AN SSSR, Leningrad (Fiziko-tehnicheskiy institut AN SSSR)

TITLE: A method of investigating the nonequilibrium conductivity of photoelectric elements with low inertia

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1966, 164-166

TOPIC TAGS: photoelectric detection, photoelectric cell, semiconductor material, semiconductor crystal, semiconductor device

ABSTRACT: The kinetics and the frequency dependence of InSb crystal photoconductivity were investigated by using semiconductor sources of noncoherent radiation consisting of GaAs, InAs and InSd diodes with a maximum radiation of 0.85, 3.5 and 5.3 microns, respectively. This group of diodes made it possible to investigate surface effect during the recombination process. Values of time constants are obtained from the relaxation curves and from the frequency dependence of photoconductivity. Good agreement was found with data published in the literature. The authors express their gratitude to D. N. Nasledov for his interest in the work and also to B. V. Tsarenkov and N. P. Yesin for supplying them with GaAs and InAs diodes. Orig. art. has: 3 figures.

SUB CODE: 20,09/ SUBM DATE: 23Jun65/ ORIG REF: 001/ OTH REF: 003

UDC: 539.293:535.215.12

Card 1/1

NIKITIN, V.N.; MOROZ, Yu.A.; GALAVINA, O.I.

Age characteristics in the effect of cortisone on liver proteins.  
Biokhimiia 27 no.4:675-678 Jl-Ag '62. (MIRA 15:11)

1. Chair of Human and Animal Physiology, State University, Kharkov.  
(CORTISONE) (LIVER) (PROTEINS)

GALAVKIN, G.I.

Modification of the design of the stretcher head of the TM-2  
machine. Obm. tekhn. optyt. [MLP] no.29:13-14 '57.

(MIRA 13:1)

(Leather--Machinery)

GALAY, Anatoliy Ionikiyevich; REZNICHENKO, I.Ye., red.; LEUSHCHENKO,  
N.L., tekhn. red.

[Carpentry and cabinetwork] Plotnichnye i stoliarnye raboty.  
Kiev, Gos. izd-vo lit-ry po stroit. i arkhit. USSR, 1961.  
73 p. (MIRA 15:3)  
(Carpentry)

6/11/81, T.

K.

CZECHOSLOVAKIA/Forestry - Forest Cultivation

Abs J<sup>0</sup>ur : Ref Zhur - Biol., No 4, 1958, 15388

Author : J. Golay

Inst

Title : Mathematical-Statistic Research on Tree Distribution  
According to Size in Slovakian Forests.  
(Issledovaniye raspredeleniya derev'yev po stupeniam  
tolshchiny v nasazdeniyakh Slovenskii s pomoshch'yu  
metodov matematicheskoy statistiki).

Orig Pub : Lesn. casop., 1957, 3, No 1, 39-74

Abstract : No abstract.

Card 1/1

GALAY, M. D.

Experiments with grain. Est. ♀ Shkole No 1, 1952.

GAIAY, M.D., uchitel'.

Experiments of young naturalists on vegetative hybridization of grains.  
Est.v shkole no.5:80 S-0 '53. (MLRA 6:8)

1. Perepravninskaya srednyaya shkola No.17 Mostovskogo rayona Krasnodarskogo  
kraya. (Hybridization, Vegetable)

ACC NR: AP7004802 (A) SOURCE CODE: UR/0413/67/000/001/0142/0142

INVENTOR: Lur'ye, I. I.; Galayba, I. N.

ORG: None

TITLE: A hydraulic amplifier built into the steering mechanism of a transportation vehicle: Class 63, No. 190226

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 142

TOPIC TAGS: hydraulic device, mechanical power transmission device, vehicle component

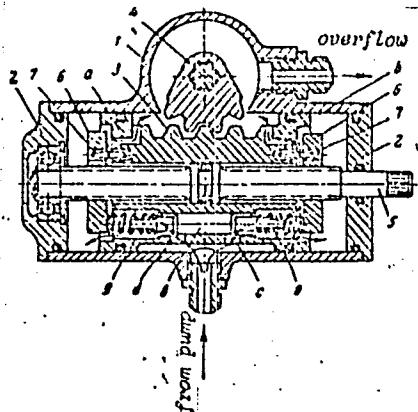
ABSTRACT: This Author's Certificate introduces a hydraulic amplifier built into the steering mechanism of a transportation vehicle. The unit contains a housing with pipe fittings for connecting the delivery and overflow lines and the cap. A piston inside the housing has teeth which mesh with a gear segment, drainage holes beginning at the ends and emerging at the overflow cavity and a discharge opening passing through the piston parallel to its axis. The discharge opening is connected in the central section to a pressurized chamber formed by a recess in the piston. The steering column passes through the piston and is held in bearings in the end caps. On both sides of the threaded section of the steering column are nuts equipped with pins to keep them stationary with respect to the piston. The distance between the inner faces of the nuts is greater than the distance between the ends of the piston where the drainage holes begin. A hydraulic distributor is located in an opening in the piston

Card 1/2

UDC: 629.11.014.514-522.5

ACC NR: AP7004802

and is turned by the nuts during rotation of the steering column. This distributor is equipped with a cylindrical slide valve loaded at both ends by springs resting on the inner faces of the nuts to simplify construction and increase the speed of the hydraulic amplifier.



1--housing; 2--caps; 3--piston; 4--gear segment; 5--steering column; 6--nuts; 7--pins;  
8--cylindrical slide valve; 9--springs; a, b--drainage holes; c, d--discharge openings.

SUB CODE: 13/ SUBM DATE: 20Dec62

Card 2/2

ZVONTSOV, A.; GALAYCHUK, A.

What is the path of a newcomer to industry. Prof. tech. obr.  
22 no. 12:26-27 D '65 (MIRA 19:1)

1. Nachal'nik otdela podgotovki kadrov zavoda "Tochelektronpribor" g. Kiyeva (for Zvontsov). 2. Nachal'nik uchelno-proizvodstvennogo tsekha zavoda "Tochelektronpribor" g. Kiyeva (for Galaychuk).

VILNER, Iosif A. (Moskva A-167, Aviationsionnyy per.10, kv. 37, CCCP); GALAJDA,  
Pavel [Galajda, Pavel]

Nonelementary relations of the equations of the third nomographic  
order and their automorphic transformations. Mat fyz cas SAV  
14 no.1:6-43 '64.

1. Department of Mathematics of the Faculty of Mechanical Engineering,  
Higher School of Technology, Kosice, Komenskeho 40 (for Galajda).  
Submitted March 1, 1963.

BARABANOV, B., kapitan; GALAYDIN, V., leytenant

Training in weapon calculations. Voen. vest. 39 no. 7:78-79  
'60. (MIRA 14:2)  
(Antiaircraft guns)

LYUBETSKIS, S.; MIKHANOVSKIY, D.; starshiy nauchnyy sotrudnik; GALAYEV,  
A., inzh.

Finished surfaces of exterior walls. Zhil.stroi. no.10:32  
'59. (MIRA 13:2)

1. Direktor zavoda zhelezobetonnykh izdeliy v Vil'nyusse  
(for Lyubetskis). 2. Nauchno-issledovatel'skiy institut  
zhilishcha Akademii stroitel'stva i arkhitektury SSSR (for  
Mikhanovskiy).  
(Vilnius--Concrete slabs)

KOTEL'NIKOV, I.V.; F NOMAREV, P.U.; GRINBERG, Yu.I.; GALAYEV, I.P.;  
TORBA, V.G.; POPOV, N.N.; VARAVA, V.I.

Making ferromanganese with the use of manganese carbonate  
ores. Met. i gornorud. prom. no.3:6-9 My-Je '64.

(MIRA 17:10)

GALAYEV, I.V.

I-6548. Separation of ethyl esters of amino acids by extractive distillation. Iv. V. Galayev. Ukrainsk. biokhim. Z., 1956, 38, 119-123; Referat. Zh. hir. Khim., 1956, Abstr. No. 16080. The ethyl esters of the monoamino-acids obtained from a chick hydrolysate were successfully separated by using a fractionating column with a theoretical efficiency of 40 theoretical plates. This preparative method could be useful for separating isotopically labelled amino acids from animal tissues. (USSR)

T. R. Parsons

Chair

BAKINOV, G.P.; BOKIY, B.V.; BOKIY, O.B.; BORISOV, A.A.; BORISOV, D.F.;  
VAYPOLIN, A.F.; GALAYEV, N.Z.; GOLOVIN, G.M.; GORODETSKIY, P.I.;  
DUBRAVA, T.S.; ZOLOTAREV, N.D.; KAZAKOVSKIY, D.A.; KELL', L.N.;  
KOMAROV, V.B.; MAKHNO, Ye.Ya.; MISNIK, Yu.M.; MUSTEL', P.I.;  
PISKUNOV, I.N.; SEMEVSKIY, V.N.; KHANUKAYEV, A.N.; SHABLYGIN, A.I.;  
POPOV, V.M.

Aleksandr Mikhailovich Aliamskii; an obituary. Gor. zhur. no.2:  
76-77 '58. (MIRA 11:3)  
(Aliamskii, Aleksandr Mikhailovich, d. 1957)

AUTHOR: Galayev, N.Z., Candidate of Technical Sciences 127-58-4-30/31

TITLE: Concerning the Article by N.G. Dubynin, G.P. Shabel'nikov, P.I. Maksimov, and S.I. Dekhtyarev on "Analysis of the Geometry of Discharge Funnels" in Gornyy Zhurnal, 1957, Nr 9 (Na stat'yu N.G. Dubinina, G.P. Shabel'nikova, P.I. Maksimova i S.I. Dekhtyareva "Issledovaniye geometrii vypusknykh vyrabotok" (Gornyy Zhurnal, 1957, Nr 9)

PERIODICAL: Gornyy Zhurnal, 1958, Nr 4, p 76-77 (USSR)

ABSTRACT: The author argues with the above mentioned authors about their findings on the most rational dimensions of discharge funnels in the system of compulsory level cave-ins. They did not take into consideration the findings of earlier researchers, such as I.A. Kaduchenko, assistants of the NIGRI and G.M. Malakhov [Ref. 1 and 2]. There are 3 graphs and 3 Soviet references.

ASSOCIATION: Leningradskiy Gornyy Institut (The Leningrad Mining Institute)

Card 1/1 1. Discharge funnels - Mathematical analysis

GORODETSKIY, P.I.; GALAYEV, N.Z.

Methods of establishing loss and depletion norms in mining  
disseminated ores. Zap.Len.gor.inst. 36 no.1:79-92 '58.  
(MIRA 12:4)  
(Mining engineering) (Ores--Sampling and estimation)

GORODETSKIY, P.I.; POPOV, G.N.; SHABLYGIN, A.I.; BOGOMOLOV, V.I.; GALAYEV, N.Z.;  
PANENKOV, Yu.I.

Method of working the Nikolaevskiy deposit. Gor.zhur. no.3:15-21  
Mr '60. (MIRA 14:5)  
(Nikolaevskiy (Ural Mountain region) Mining engineering)

GALAYEV, N.Z., dots.; FEDOROV, V.F., mekhanik

DS-2 dynamometer-transmitters for modeling rock pressure by the  
equivalent materials method. Gor.zhur. no.9:75 S '60.  
(MIRA 13:9)

1. Leningradskiy gornyy institut.  
(Rock pressure) (Geological modeling)

GALAYEV, N.Z.

Modeling a chamber-and-pillar system by the equivalent materials  
method using the dynamometric principle. Zap.IGI 44 no.1:24-32  
'61. (MIRA 14:10)  
(Mining engineering) (Dynamometer) (Engineering models)

GALAYEV, N.Z., kand.tekhn.nauk; ISAYEV, A.V., gornyy inzh.-marksheyder

Caving fractured rocks in working flat deposits. Gor. zhur.  
no.12:5-8 D '62. (MIRA 15:11)

1. Leningradskiy gornyy institut (for Galayev). 2. Noril'skiy  
kombinat (for Isayev).  
(Mining engineering)

GALAYEV, N.Z., kand.tekhn.nauk; ISAYEV, A.V., gornyy inzh.

Controlling rock pressure in systems with caving in the  
"Zapolyarnyy" Mine. Gor. zhur. no.6:25-27 Je '62. (MIRA 15:11)

1. Leningradskiy gornyy institut (for Galayev).
2. Noril'skiy gorno-metallurgicheskiy kombinat (for Isayev).  
(Noril'sk region—Rock pressure)  
(Mining engineering)

GALAYEV, N.Z.

Distribution of support pressure during excavation in various  
directions; for the lower block of the "Zapoliarneyy" Mine.  
Zap. LGI 48 no.1:93-100 '63. (MIRA 17:8)

GALAYEV, N.Z.; SHAVLYGIN, A.I., dots., red.

[Ore drawing] Vypusk rudy. Leningrad, Gornyi in-t,  
1964. 47 p. (MIRA 18:7)

GALAYEV, N. N.

Rock pressure control in the "Zapeliarnyy" mines of the Noril'sk  
Combine. Zap. OG 49 no. 1613-20 '64.

(MIRA 18:8)

GALAEV, N.Z., SHIMAN, M.I.

Influence of the extent of ground loosening on the crs yield under  
caved rock. Zap. MGI 49 no.1:21-27 '64.

(MIRA 18:8)

Galyavet, N.Y., radio, teletext, news, Sovetsk, Yukos, gornyj tsch.

Prevention of ore freezing in the Yukspor mine of the "Koptit" Combine. Cor. stur. no. 10; 12-19 6-165. (MUR 18-11)

1. Leningradskiy gornyj institut.

ACC NR: AT7002128

(A)

SOURCE CODE: UR/0000/66/000/000/0488/0491

AUTHORS: Galayev, N. Z.; Yanishevskiy, A. A.

ORG: none

TITLE: A study of the pressure of collapsed rocks by the method of centrifugal modeling

SOURCE: Vsesoyuznaya konferentsiya po polyarizatsionno-opticheskому методу изследования напряжений. 5th, Leningrad, 1964. Polyarizatsionno-opticheskiy metod issledovaniya napryazheniy (Polarizing-optical method of investigating stresses); trudy konferentsii. Leningrad, Izd-vo Leningr. univ., 1966, 488-491

TOPIC TAGS: geology, mining engineering, mechanics, stress distribution, centrifuge, polarimeter, polarization device/ BKTs-3 centrifuge, PPU-7 polarization device, KSP-5 polarimeter

ABSTRACT: A study was made of the distribution of stresses in rocks surrounding a mined-out space. The results of experiments to determine the growth of pressure of undermined rock on a horizontal plane of mined-out space are reported. The method of centrifugal modeling was used in making the investigation. Four three-dimensional models were prepared. Optical material consisted of an epoxide resin in two pre-selected concentrations; to 100 parts by weight of resin were added 30 parts by weight of a congealant (maleic anhydride). The mixture was placed in specially

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ACC NR: AT7002128

prepared forms modeling the mined-out cavity in a rock mass (see Fig. 1).

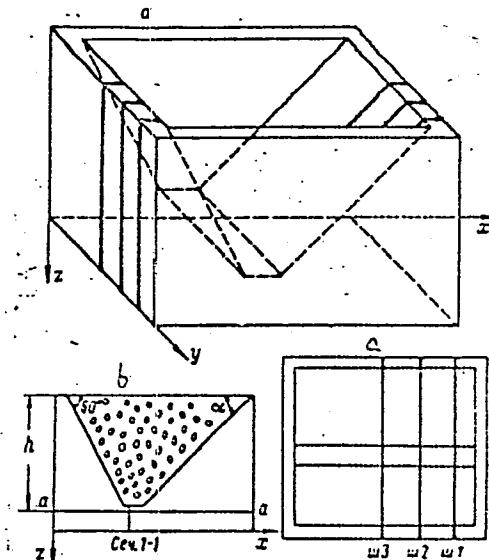


Fig. 1. General view of the model (a), its cross section (b), and the location of sections (c)

Stress in the model was generated through centrifugal force by a BKTs-3 centrifuge constructed at the Leningrad Mining Institute. Other experimental apparatus included  
Card 2/3

ACC NR: AT7002128

the PPU-7 polarization device, and a KSP-5 polarimeter. The four models studied produced the following conclusions: 1) the lowering of mining depth from 250 to 350 m results in a 160% increase in the stress in the floor of the mined-out space; 2) the stress distribution in a horizontal section beneath the mined-out space depends not only on the depth of the work, but also on the fall angle of the rock and the collapse of support rock; 3) the stress on a horizontal layer decreases with decrease of the angle of occurrence of the ore rock; 4) the principal normal stresses along the strike of the ore rock are nonuniformly distributed and increase toward the center portion of the mined out space. Orig. art. has: 2 figures. [W.A. 101]

SUB CODE: 08, 13/ SUBM DATE: 14Jun66

Card 3/3

MUSTEL', P.I.; DYAD'KIN, Yu.D.; BOKIY, B.V.; KELL', L.N.; KOMAROV, V.B.;  
SEMEVSKIY, V.N.; BORISOV, D.F.; GOLOVIN, G.M.; USEVICH, I.V.;  
~~DUBRAVA, T.S.~~; SHABLYGIN, A.I.; ZOLTOLAREV, N.D.; ~~GALAYEV, N.Z.~~;  
SIGACHEV, A.Ye.; PANENKOV, Yu.I.; SENUK, D.P.; KOPYLOVA, Ye.V.

Pavel Ivanovich Gorodetskiy; an obituary. Gor zhur. no.5:77 My '60.  
(MIRA 14:3)  
(Gorodetskiy, Pavel Ivanovich, 1902-1950)

GALAYEV, V.M.

Vegetative reproduction of spruce layers in *Picea hylocoma-myosotiflora*. Bot. zhur. 49 no.10:1468-1471 0 '64.

(MIRA 18:1)

i. Institut lesa i lesokhimii, g. Arkhangel'sk.

GALAYEV, Yu.V.

GUBAREV, Ye.M.; LUBENETS, Ye.K.; KANCHUKH, A.A.; GALAYEV, Yu.V.

Fractionization and composition of certain lipid fractions of diphtheria bacilli. Biokhimiia, Moskva 16 no.2:139-145 Mar-Apr 1951. (CLML 20:?)

1. Department of Biochemistry, Rostov Medical Institute.

*GALAYEV, Yu. V.* GALAYEV, YU. V., CHAIR OF  
BIOCHEMISTRY

"The Chemical Composition of certain Fractions of Lipids Contained in Diphtheria Microbes," Ye. M. Gubarev, Ye. K. Lubenets, Yu. V. Galayev, Chair of Biochemistry, Rostov Fed Inst

Biokhim, Vol 18, No 1, pp 37-46

This article is a sequel to a previously published description of the extn of lipids from diphtheria microbes of the PW No 8 strain. It describes in detail the procedure used in detg the chem compn of various fractions of the benzene and chloroform exts. The findings showed that the lipids of the diphtheria microbes may be divided on the basis of their compn into free fatty acids, "Microzides" (trehalose esters of hydroxy acids) and waxes. The group of microzides was found to be quantitatively larger than the wax group. The microzides are present in the acetone-insol fractions of the benzene and chloroform exts. The waxes are present in small quantities in the acetone-sol fractions of the benzene and chloroform exts.

257T1

GALAYEV, Yu.V.

✓ 5629. Amino acid content of diphtheria bacteria proteins. Y. V. Galayev *Biokhimiya*, 1955, 20, 673-678 (Dept. Biochem. Rostov-on-Don State Med. Inst., U.S.S.R.).—Alkali soluble proteins of *C. diphtheriae*, strain PW No. 8, were fractionated into: (a) Diphtein, pptd. with acetic acid, (b) Diphtheroglobulin, pptd. 50% sat.  $(NH_4)_2SO_4$ , sol. in water and (c) Protein III, pptd. 50% sat.  $(NH_4)_2SO_4$ , insol. in water. The amino acid composition of the three fractions was determined by two dimensional chromatography after hydrolysis with 6 N. HCl. All were found to contain aspartic acid, cystine, serine, glutamic acid, glycine, threonine, alanine, valine, tyrosine, lysine, arginine, leucine, isoleucine, phenylalanine, and proline. All of these except cystine, serine, valine, threonine, and arginine were obtained from diphtein in crystalline form, all were found to have the L configuration except phenylalanine which was racemic. (Russian) A.K. GRZYBOWSKI.

Med

GALAYEV, Yu. V.

✓ The identification of amino acids in hydrolyzed native proteins by the method of ionophoresis combined with paper chromatography. Yu. V. Galayev and E. K. Alimova (Med. Inst., Rostov). *Biofizika* 21, 538-41 (1976). — A paper chromatographic-ionophoretic study was made of individual amino acids and of the partitioning of a complex of amino acids. The characteristics of the method are simplicity and speed. The method consists of two steps, the paper chromatographic and the ionophoretic, which follow one another in an automatic manner; it is most suited to the partitioning of basic and dicarboxylic acids. With the aid of this method a study was made of the amino acid composition of the lipoproteins and of the gray and white matter of the brain. The following were found: cystine, arginine, lysine, histidine, aspartic acid, threonine, serine, glycine, glutamic acid, alanine, tyrosine, valine, and phenylalanine.

B. S. Levine

2

GALAEV, Yu. V.

✓The separation of ethyl esters of amino acids by the method of precision distillation-fractionation. Yu. V. Galaev (Med. Inst., Rostov-on-Don). Ukr. Biokhim. Zhur. 28, 110-23 (1956) (in Russian). --An attempt was made to sep. a mixt. of monoamino acids of casein hydrolyzates in the form of ethyl esters by the method of fractionation. The sepn. was made with the aid of a rectification column equiv. to 40 theoretical plates. Such fractionation and sepn. was effective with the latest type of rectification assembly. In some instances individual amino acids were sepd. after the first distn. Other fractions were combinations of only 2, at most 3 amino acids, which were easily sepd. upon further fractional distn. With further improvements such procedure might be effectively applied to the isolation from animal tissues of amino acids isotopically labeled by biol. synthesis. B. S. Levine

GUBAREV, Ye.M.; GALAYEV, Yu.V.

Amino acid decarboxylases in dysentery bacteria [with summary in English]. Biokhimia 22 no.3:441-444 My-Je '57. (MIRA 10:11)

1. Kafedra biokhimii Rostovskogo meditsinskogo instituta.  
(*SHIGELLA DISENTERIAE*, metabolism,  
amino acid decarboxylase (Rus))  
(DESMOLASES,  
amino acid decarboxylase in *Shigella dysenteriae* (Rus))

GUBAREV, Ye.M.; GALAYEV, Yu.V.

Spectrophotometric study of proteins of the diphtheria microbe  
[with summary in English]. Ukr.biokhim. zhur. 29 no.2:196-198 '57.  
(CORYNEBACTERIUM DIPHTHERIAE) (MIRA 10:7)  
(PROTEINS) (SPECTROPHOTOMETRY)

GALAYEV, Yu.V.

Amino acid composition of proteins in *corynebacterium diphtheriae* insoluble in alkalies [with summary in English]. Biokhimia 23 no.3: 341-343 My-Je '58 (MIRA 11:8)

1. Kafedra biokhimii Rostovskogo-na-Donu meditsinskogo instituta.  
(*CORYNEBACTERIUM DIPHTHERIAE*, metabolism,  
amino acid composition of acid fast proteins (Rus))  
(AMINO ACIDS,  
*Corynebacterium diphtheriae*, in acid fast proteins (Rus))

*Khomik, S.R., Galayev, Yu.V.*  
KHOMIK, S.R.; GALAYEV, Yu.V.

Biochemistry of amino acid metabolism in *Salmonella breslau*. Zhur. mikrobiol. epid. i immun. 29 no.4:52-58 Ap '58. (MIRA 11:4)

1. Iz Rostovskogo instituta epidemiologii, mikrobiologii i gigiyeny i kafedry biokhimii Rostovskogo meditsinskogo instituta.

(*SAIMONELLA*, metabolism,

*breslau*, amino acids (Rus)

(*AMINO ACIDS*, metab.

*Salmonella breslau* (Rus)

GALAYEV, Yu.V. [Halaev, IU.V.]

Glutamic decarboxylase of dysentery bacteria [with summary in English]. Ukr.biokhim.zhur. 30 no.6:880-887 '58. (MIRA 11:12)

1. Kafedra biologicheskoy khimii Rostovskogo meditsinskogo instituta.  
(GLUTAMIC DECARBOXYLASE)  
(SHIGELLA SONNEI)

KHOMIK, S.R.; GALAYEV, Yu.V.

Glutamin-decarboxylic and differential diagnosis of *Salmonella* and  
paracolon bacilli. Zhur.mikrobiol.epid.i immun. 30 no.7:60-63 Jl '59.  
(MIRA 12:11)

1. Iz Rostovskogo-na-Donu instituta epidemiologii, mikrobiologii i  
gigiyeny i Rostovskogo-na-Donu meditsinskogo instituta.

(*SALMONELLA* INFECTIONS - diagnosis)  
(*PARACOLOBACTERUM* - infections)

GALAYEV, Yu.V. [Halaiev, IU.V.]; KHOMIK, S.R.

Pathogenesis of *Salmonella breslau* infections. Mikrobiol. zhur.  
22 no. 1:34-39 '60. (MIRA 13:10)

1. Rostovskiy-na-Donu gosudarstvennyy meditsinskiy institut.  
(*SALMONELLA TYPHIMURIUM*) (ARGININE DECARBOXYLASE)

GUBAREV, Ye.M. [Hubariev, IE.M.]; GALAYEV, Yu.V. [Halairov, IU.V.]

Antigenic properties of glutamic decarboxylase obtained from  
dysentery bacteria. Mikrobiol. zhur. 22 no. 1:54-59 '60.

(MIRA 13:10)

1. Iz Rostovskogo meditsinskogo instituta, laboratoriya biokhimii  
patogennykh mikrobov.  
(SHIGELLA) (GLUTAMIC DECARBOXYLASE)

GALAYEV, Yu.V.

Arginine decarboxylase in *Salmonella typhimurium*. Biokhimia 25  
no.1:68-72 Ja-F '60. (MIRA 13:6)

1. Chair of Biochemistry, Medical Institute, Rostov-on-Don.  
(DESMOLASES chem.)  
(SALMONELLA TYPHIMURIUM chem.)

GUBAREV, Ye.M.; GALAYEV, Yu.V.

Bacterial method for the production of  $\gamma$ -aminobutyric acid. Biokhimia  
25 no.2:262-263 Mr-Ap '60. (MIRA 14:5)

1. Kafedra biologicheskoy khimii Rostovskogo meditsinskogo instituta.  
(BUTYRIC ACID) (ESCHERICHIA COLI)  
(GLUTAMIC DECARBOXYLASE)

GALAYEV, Yu.V.; KHOMIK, S.R.

Preparación with an arginine-decarboxylase activity obtained from  
S. typhimurium and its effect in an experiment; author's abstract.  
Zhur.mikrobiol.epid.i immun. 31 no.8:141 Ag '60. (MIRA 14:6)

1. Iz Rostovskogo meditsinskogo instituta i Rostovskogo instituta  
epidemiologii, mikrobiologii i gigiyeny.  
(SALMONELLA TYPHIMURIUM) (ARGININE)  
(DECARBOXYLASE)

GALAYEV, YU. V., GUBAREV, YE. M., and DAVYDOV, V. P. (USSR)

"The Amino Acid Decarboxylases in Different Strains of Escherichia coli and their Pathogenicities."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

KHOMIK, S.R.; GALAYEV, Yu.V.; LEBEDEVA, Ye.A.

Effect of tetracycline on amino acid decarboxylase of *Salmonella typhimurium*. Antibiotiki 7 no.6:548-551 Je '62. (MIRA 15:5)

1. Rostovskiy institut epidemiologii, mikrobiologii i gigiyeny  
i kafedra biokhimii Rostovskogo meditsinskogo instituta.  
(TETRACYCLINE) (SALMONELLA TYPHIMURIUM)  
(AMINO ACID DECARBOXYLASES)

GALAYEV, Yu.V. [Halaiev, Iu.V.] [Rostov-na-Donu]

Amino acid decarboxylases in bacteria. Ukr. biokhim. zhur. 35 no.5:  
776-800 '63. (MIRA 17:5)

GALAYEV, Yu.V.; GUBAREV, Ye.M. [deceased]; DAVYDOV, V.P.

Decarboxylation of amino acids with different strains of  
Escherichia coli and intestinal flora from children with  
gastrointestinal disorders. Zhur. mikrobiol., epid. i immun.  
40 no. 8:117-122 Ag '63. (MIRA 17:9)

1. Iz Rostovskogo-na-Donu meditsinskogo instituta.

DAVYDOV, V.P., prof.; GALAYEV, Yu.V.; GUBAREV, Ye.M., prof.

Some problems of the pathogenesis of intestinal diseases caused by coli infections in young children. *Pediatrija* 42 no.5: 63-68 My'63.  
(MIRA 16:11)

1. Iz kafedry gospital'noy pediatriii (zav. - prof. V.P. Davyдов) i kafedry biokhimii (zav. - prof. Ye.M.Gubarev) Rostovskogo na-  
Dc i meditsinskogo instituta.

\*

ACC NR: AP6028632

SOURCE CODE: UR/0297/66/011/008/0710/0714

AUTHOR: Pustovoytova, O. I.; Galayev, Yu. V.; Finn, G. R.

ORG: Department of Biochemistry and Microbiology, Volgograd Medical Institute  
(Kafedra biokhimii i mikrobiologii Volgogradskogo meditsinskogo instituta)

TITLE: Changes in amino-acid decarboxylase activity of typhoid bacteria during development of antibiotic resistance

SOURCE: Antibiotiki, v. 11, no. 8, 1966, 710-714

TOPIC TAGS: typhoid fever, typhoid bacteria, antibiotic, antibiotic resistance, bacteria metabolism, human ailment, amino acid, bacteriology

ABSTRACT: Changes in amino-acid decarboxylase activity of typhoid bacteria were investigated during passaging on meat peptone agar containing various antibiotics. Complete inhibition of ornithine and histidine decarboxylases resulted during development of resistance to chlortetracycline, and arginine and lysine decarboxylase activity was considerably lowered. Similar but less pronounced changes resulted during accumulation of levo-

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UDC: 576.851.49-097.22:615.779.9-9.098.31

ACC NR: AP6028632

mycetin resistance while there was little change in decarboxylase  
activity during development of streptomycin resistance.  
[WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: 20Apr65/ ORIG REF: 002/ OTH REF: 005/

Card 2/2

ARTEM'YEV, Yu.N., kand. tekhn. nauk; ASTVATSATUROV, G.G., inzh.; BARABANOV, V.Ye., inzh.; BARYKOV, G.A., inzh.; BISNOVATYY, S.I., inzh.; GALAYEVA, L.M., inzh.; GAL'PERIN, A.S., kand. tekhn. nauk; GAL'CHENKO, I.I., inzh.; GONCHAR, I.S., kand. tekhn. nauk; DEGTYAREV, I.L., kand. tekhn. nauk; DYADYUSHKO, V.P., inzh.; YERMAKOV, I.N., inzh.; ZHOTKEVICH, T.S., inzh.; ZUSMANOVICH, G.G., inzh.; KAZAKOV, V.K., inzh.; KOZLOV, A.M., inzh.; KOROLEV, N.A., inzh.; KРИVENKO, P.M., kand. tekhn. nauk; LAPITSKIY, M.A., inzh.; LEBEDEV, K.S., inzh.; LIBERMAN, A.R., inzh.; LIVSHITS, L.G., kand. tekhn. nauk; LOSEV, V.N., inzh.; LUKANOV, M.A., inzh.; LYUBCHENKO, A.M., inzh.; MAMEDOV, A.M., kand. tekhn. nauk; MATVEYEV, V.A., inzh.; ORANSKIY, N.N., inzh.; POLYACHENKO, A.V., kand. tekhn. nauk; POPOV, V.P., kand. tekhn. nauk; PUSTOVALOV, I.I., inzh.; PYTCHENKO, P.I., inzh.; PYATETSKIY, B.G., inzh.; RABOCHIY, L.G., kand. tekhn. nauk; ROL'BIN, Ye.M., inzh.; SELIVANOV, A.I., doktor tekhn. nauk; SEMENOV, V.M., inzh.; SKOROKHOD, I.I., inzh.; SLABODCHIKOV, V.I., inzh.; STORCHAK, I.M., inzh.; STRADYMOV, F.Ya., kand. tekhn. nauk; SUKHINA, N.V., inzh.; TIMOFEEV, N.D., inzh.; FEDOSOV, I.M., kand. tekhn. nauk; FILATOV, A.G., inzh.; KHODOV, L.P., inzh.; KHROMETSKIY, P.A., inzh.; TSvetkov, V.S., inzh.; TSEYTLIN, B.Ye., inzh.; SHARAGIN, A.M., inzh.; CHISTYAKOV, V.D., inzh.; BUD'KO, V.A., red.; PESTRYAKOV, A.I., red.; GUREVICH, M.M., tekhn. red.

(Continued on next card)

ARTEM'YEV, Yu.N.---- (continued) Card 2.

[Manual on the repair of machinery and tractors] Spravochnik po  
remontu mashinno-traktornogo parka. Pod red. A.I.Selivanova.  
Moskva, Sel'khozizdat. Vols.1-2. 1962. (MIRA 15:6)  
(Agricultural machinery--Maintenance and repair)  
(Tractors--Maintenance and repair)

GALAYEVA, O.V.

Some problems in the work of a maternal health center. Vop.ohh.mat.  
i det. 7 no.4:85-87 Ap '62. (MIRA 15:11)

1. Iz zhenskoy konsul'tatsii pri 8-y gorodskoy bol'nitse Rostova-na-Donu (glavnnyy vrach Ya.D.Marchenko, nauchnyy rukovoditel' - prof. P.Ya.Lel'chuk).

(WOMEN--HEALTH AND HYGIENE)

GALAVINA, O. V.

Periperal hematomata of the vulva and vagina, "Kad", fig. 10  
no. 1137-138 Ja-F 164. (MUR 17;E)

1. Sheanskaya konsul'satsiya pri Gorodskoy bol'niце No.8  
(glavnyy vrach Ya. A. Maronenko, nauchnyy konsul'tant - prof.  
Ya. Leibnuk) Postovnoye kont.

GALAYKO, G. M.

"Acute cholecystitis and indications for its surgical treatment."  
Min Health USSR. Central Inst for the Advanced Training of Physicians.  
Moscow, 1956. (Dissertations for the Degree of Candidate in Medical  
Science)

So: Knizhaya letopis', No. 16, 1956

GALAYKO, G.M., kandidat meditsinskikh nauk

Acute cholecystitis and indications for surgery. Khirurgija 32 no.11:  
12-21 N '56. (MLR 10:3)

1. Iz 1-y khirurgicheskoy kafedry (zav. - deystvitel'nyy chlen AMN  
SSSR prof. V.R.Braytsev) TSentral'nogo instituta usovershenstvovaniya  
vrachey (dir. V.P.Lebedeva) na baze TSentral'noy klinicheskoy bol'ni-  
tey Ministerstva putey soobshcheniya imeni Semashko.

(CHOLECYSTITIS, surg.  
indic.)

GALAYKO, G.M., kand.med.nauk

Cancer of the gall bladder and extrahepatic bile ducts [with  
summary in English]. Khirurgiia 33 no.7:57-65 Jl '57. (MIRA 10:11)

1. Iz 1-y khirurgicheskoy kafedry (zav. kafedroy - deystvitel'nyy  
chlen AMN SSSR zasluzhennyy deyatel' nauki prof. V.R.Braytsev)  
TSentral'nogo instituta usovershenstvovaniya vrachey (dir. V.P.  
Lebedeva) na baze TSentral'noy klinicheskoy bol'niцы Ministerstva  
putej soobshcheniya im. N.A.Semashko (nach. V.P.Akopov)  
(BILIARY TRACT, neoplasms  
case reports)

GALAYKO, G.M., kand.med.nauk (Moskva, ul. Gertseva, d.50/5, kv.24)

Nonepithelial tumors of the stomach. Vest.khir. no.7:38-43 '61.  
(MIRA 15:1)

1. Iz 1-y khirurgicheskoy kafedry (zav. - prof. V.R. Braytsev)  
TSentral'nogo instituta usovershenstvovaniya vrachey na baze  
TSentral'noy klinicheskoy bol'nitsy im. Semashko Ministerstva  
putey soobshcheniya.  
(STOMACH--TUMORS)

ANDROSOV, P. I.; GALAYKO, G. M.

Resections of the lungs using the UKB-25 and UKL-60. Grud. khir.  
no.2:34-37 '62. (MIRA 15:4)

1. Iz khirurgicheskogo otdeleniya TSentral'noy klinicheskoy bol'-nitsy imeni Semashko Ministerstva putey soobshcheniya (nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. V. R. Braytsev, nachal'nik bol'nitsy - A. A. Potsubeyenko)

(LUNGS—SURGERY)  
(SURGICAL INSTRUMENTS AND APPARATUS)

GALAYKO, R.I.

~~Experiments on the Inoculation of Cast Iron with Magnesium. S. I. Viterzon, K. S. Teporakayev, N. G. Galaktionov. Vestn. Promst. 1955, (5), 15-17. (In Russian).~~ The skulls remaining in the radio after inoculation of a cast iron with Mg, and with Mg plus FeSi, were examined with special reference to heterogeneity. - R. I.

3

Poland/Solid State Physics - Phase Transformations in Solids, E-5

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34703

Author: Vitenzon, S. I., Tripol'skaya, R. S., Galayko, R. I.

Institution: None

Title: Experience in Modification of Cast Iron by Magnesium

Original Periodical: Przegl. Odlewn., 1956, 6, No 1, 28-29

Abstract: Translation from the periodical Liteynoye proizvodstvo [Casting Industry],  
1955, No 5, (Referat Zhur - Fizika, 1956, 10390)

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S/137/62/000/001/210/237

A154/A101

1.1710

AUTHORS: Snezhnaya, R.-L., Galayko, R.-I.

TITLE: Annealing magnesium-cast-iron castings in a fluid medium

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 96, abstract 11688  
(V sb. "Polucheniye izdeliy iz zhidk.-met.-s uskoren. kristalli-  
zatsiyey". Moskva-Kiyev, Mashgiz, 1961, 82 - 87)

TEXT: An automatic heat-treatment unit, consisting of an electric salt bath and an electrical conveyer furnace, was made for the fast annealing of magnesium-cast-iron castings. The unit is installed in a production line. The fast-annealing technology for magnesium-cast-iron is described; the parts are held in the salt bath for 20 - 25 min at 920 - 950°C, and then for 50 min in the furnace at 600 - 730°C. Cooling is carried out in a chamber having a water sprinkler. The total duration of the annealing cycle, 1 hr 10 min, is 5.5 times less than in conventional conveyer furnaces, and 60 - 80 times less than the normal cycle for malleable cast iron.

[Abstracter's note: Complete translation]

T. Fedorova

Card 1/1

GALAYKO, S. M.

GALAYKO, S. M. -- "Antibiotics in the Prophylaxis and Treatment of Peritonitis." Samarkand State Medical Inst imeni I. P. Pavlov. Samarkand, 1955. (Dissertation for the Degree of Candidate in Medical Sciences).

So.: Knizhnaya Letopis', No. 2, 1956.

KHAYDAROV, A.Kh.; GALAYKO, S.M.

Treatment of extensive burns. Med. zhur. Uzb. no.11:66-68 N<sup>o</sup> 61.  
(MIRA 15:2)

1. Iz kliniki gospital'noy khirurgii (zav. - doktor med.nauk Khaydarov,  
A.Kh.) Samarkandskogo gosudarstvennogo meditsinskogo instituta imeni  
akademika I.P.Pavlova. (BURNS AND SCALDS)

S/242/62/000/008/001/001  
I053/I215

AUTHORS Khaydarov, A. Kh., Prof. Cand. Med. Sc.; Galayko, S. M., Levin, S. I., and Foygel'man, A. Ya.

TITLE Homo-autoplastic surgery in burns of irradiated animals

PERIODICAL Meditsinskiy zhurnal uzbekistana, no. 8, 1962, 55-57

TEXT: The biologic principles of the successful transplantation of homografts are not yet understood. Twenty six rabbits of about the same weight and age were subjected to charring burns on their backs ( $9 \text{ cm}^2$ ). The necrotic scab was removed at regular time intervals and an auto- or homograft was immediately transplanted into the opened wound. Twenty rabbits were subjected to repeated X-irradiation. ( $2 \times 600\text{r}$ ). Penetrating radiation affects the recipient of the homeograft, which, when transplanted during the height of radiation sickness dissolved rapidly. The healing process of autografts is slower in the irradiated animals than in the controls. Homografts transplanted from irradiated animals, 7 days after irradiation with  $600\text{ r}$ , to healthy animals, remained alive for a long time and the epithelisation of the wound occurred after 4-5 weeks.

ASSOCIATION: Kafedra gospital'noy khirurgii Samarkandskogo gosudarstvennogo meditsinskogo instituta (Chair of Hospital Surgery State Institute of Medicine, Samarkand)

Card 1/1

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614020019-8

GALAYKO, S.M., kand. med. nauk; KHAYDAROV, A.Kh., prof.; MUSAYEV, T.M.,  
aspirant

Surgical treatment of trophic ulcers of the leg. Nauch.  
(MCRA 17:9)  
trudy SamMI 22:89-93 '63.

1. Iz kliniki gospital'noy khirurgii Samarkandskogo meditsinskogo instituta.

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614020019-8"

KHAYDAROV, A.Kh., prof.; OBUKHOVA, L.M., dotsent; GALAYKO, S.M.,  
kand. med. nauk

Restorative operations in cicatricial contractures. Nauch.  
(MIRA 17:9)  
Trudy SamMI 22:100-106 '63.

1. Iz kliniki gospital'noy khirurgii Samarkandskogo meditsinskogo  
instituta.

J 40984-66 EWT(m) GG

ACC NR: AR6011864

SOURCE CODE: UR/0299/65/000/020/M017/M017

AUTHOR: Khaydarov, A. Kh.; Galayko, S. M.

19  
25  
B

TITLE: Morphological change of homotransplants in irradiated animals

SOURCE: Ref. zh. Biologiya, Abs. 20M102

REF SOURCE: Nauchn. tr. Samarkandsk. med. in-t, v. 31, 1964, 45-48

TOPIC TAGS: animal experiment, tissue transplant, skin physiology, radiation biologic effect, radiation sickness, rabbit

ABSTRACT: Six rabbits were irradiated with single 400 to 600 r doses; and, following irradiation skin from these animals was transplanted to nonirradiated animals in 1 to 3 days (1st series, 5 rabbits), in 7 days (2nd series, 5 rabbits) and in 1½ to 2 mos (3rd series, 5 rabbits). Skin from nonirradiated donors was transplanted to 3 control rabbits. Morphology of transplant accretion in rabbits of the 1st and 2nd series corresponded to that of control rabbits (the wound was replaced by scar tissue in 3 weeks). In rabbits of the 3rd series, the transplants from animals who had survived acute radiation sickness took for a longer period (dystrophic changes in the transplant were found only after 4 weeks). N. S. [Translation of abstract].

SUB CODE: 06

Card 14 gd

UDC: 577.99